

Note on Comet Gale (b 1894). By Walter F. Gale.

The following elements have been computed by the Rev. Thomas Roseby, LL.D., of this city, from Mr. Tebbutt's observations of April 3, 6, and 12 :

T	1894 April 13.757 G.M.T.	
π	$170^{\circ} 32' 31''.6$	} Mean Equinox 1894.0.
ϖ	$206 14 23.8$	
i	$87 16 15.3$	
log q	9.99349	
Motion direct.		

The deduced middle place closely agrees with observation, the differences being

$$\begin{array}{rcl} C-O \, d\lambda \cos \beta & - & 0''.88 \\ & d\beta & + 7.3 \end{array}$$

The comet became visible to the naked eye on April 7, and on the 25th reached the 4th magnitude. At no time, however, was the tail exhibited to unassisted vision.

It may be worthy of record that on April 2 the tail was 1° long, very faint, and narrow. It increased in brightness until, on the 12th, it was approximately 2° long and $1'$ wide, the diameter of the coma being $12'$. On the 15th, when next observed, the tail had entirely disappeared—a change certainly not due to parallax. The comet remained a circular nebulosity, with considerable condensation, until the 20th, when a diffused extension was visible, which subsequently appeared as an ill-defined tail $40'$ in length.

Paddington, Sydney, N.S.W. :
1894 May 1.

Observations of Gale's Comet, made at the Cambridge Observatory, with Northumberland Equatorial and Square Bar Micrometer.

(Communicated by Sir R. S. Ball.)

G.M.T. corrected for Aberrn.	Geoc. R.A.		Geoc. Decl.		Compared Stars.		Authority.	No. of Com- parisons.
	h	m s	°	' "	R.A. 1894 ^o .	Decl. 1894 ^o		
1894. May 4 ^h 39 ^m 56 ^s	8 28	36.62	- 3	6 47.5	h m s 8 31 13.29	- 3 8 32.3	Lalande 16947	5
7 ^h 38 ^m 33 ^s 6	8 57	48.70	+ 7 26	4.0	8 57 36.89	+ 7 13 59.5	Bessel 8 ^h 1423	6
7 ^h 39 ^m 52 ^s 6	8 57	55.22	7 27	49.5	8 57 36.89	7 13 59.5	" "	6
7 ^h 45 ^m 62 ^s 9	8 58	27.91	7 40	53.4	8 57 6.31	7 42 56.4	Bessel 8 ^h 1414	5
10 ^h 39 ^m 81 ^s 2	9 22	36.30	15 52	40.7	9 23 32.57	15 50 5.4	" 9 ^h 450	9
10 ^h 39 ^m 81 ^s 2	9 22	36.84	15 52	40.3	9 24 46.51	15 43 36.2	" 9 ^h 472	
17 ^h 40 ^m 13 ^s 7	10 6	17.19	28 20	50.8	10 5 34.02	28 21 56.0	Camb. Zones, 3 obs.	10
18 ^h 41 ^m 51 ^s 3	10 11	23.63	29 33	42.4	10 14 39.06	29 28 30.9	" "	10
21 ^h 42 ^m 54 ^s 4	10 25	11.19	32 34	56.5	10 23 22.61	32 32 52.7	Bessel 10 ^h 417, 418	10
21 ^h 42 ^m 54 ^s 4	10 25	9.26	32 34	57.2	10 26 28.46	32 30 7.1	" 10 ^h 480	
23 ^h 43 ^m 41 ^s 2	10 33	22.53	34 12	15.4	10 40 52.20	34 7 1.7	" 10 ^h 789	5
23 ^h 43 ^m 41 ^s 2	10 33	22.67	34 12	15.8	10 41 47.46	34 8 56.7	" 10 ^h 805	
24 ^h 43 ^m 28 ^s 1	10 37	13.74	34 54	41.6	10 35 58.84	34 50 10.7	" 10 ^h 682, 683	10
31 ^h 43 ^m 35 ^s 5	11 0	34.68	38 35	0.5	11 2 29.81	38 33 48.4	" 10 ^h 1216, 1217	10
31 ^h 43 ^m 35 ^s 5	11 0	34.90	38 34	57.8	11 4 55.03	38 30 25.6	" 11 ^h 26	

Notes.

May 7.—The comparisons with Bessel 8^h 1423 were unsatisfactory. The comet crossed too low in the field when the star was suitably placed.
May 21.—The results seem to indicate proper motion in one of the compared stars, or an error in Bessel's Catalogue of 2^d Right Ascension.